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YORK MSA
WILLIAMSPORT MSA
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SHARON MSA
SCRANTON -
WILKES-BARRE MSA
READING MSA
PITTSBURGH PMSA
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ERIE MSA
BEAVER COUNTY
PMSA
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PENNSYLVANIA'S LABOR FORCE

.... A Monthly Statistical Analysis

Highlights

- Unemployment, seasonally adjusted, fell below 5.0 percent for the third time this year to 4.6 percent in November.
- Nonagricultural wage and salary jobs set new record of 5,113,300 in October.
- Nonmanufacturing employment at new all-time high of 4,055,900 in October.
- Twenty-nine counties in Pennsylvania posted unemployment rates below 5.0 percent.
- Weeks claimed for unemployment compensation lowest since November 1969. Initial claims lowest for the month in 19 years.
- Pennsylvania's outstanding federal unemployment compensation debt fully repaid.

INSIDE	
Current Labor	
Force Situation.....	1
Nonagricultural	
Jobs.....	2-3
Hours and	
Earnings.....	4
Unemployment	
Compensation.....	5
County Data.....	6
Pennsylvania's	
Labor Markets.....	7
Pennsylvania's	
Service Delivery	
Areas.....	8
Special	
Subject.....	9

November 1988 DATA

ISSUED: December 1988

LABOR
MARKET
INFORMATION

Commonwealth of Pennsylvania

Robert P. Casey, Governor

Department of Labor and Industry

Bureau of Research and Statistics

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF LABOR AND INDUSTRY
BUREAU OF RESEARCH AND STATISTICS

Pennsylvania's Labor Force A Monthly Statistical Analysis

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CURRENT LABOR FORCE SITUATION

STATEWIDE EMPLOYMENT UP IN NOVEMBER

After a lackluster performance in September and October, statewide employment jumped in November reducing unemployment to the summer low of August.

Employment moved up strongly according to two independent surveys. Based on preliminary results from our Bureau of Research and Statistics survey of employers, the number of nonagricultural wage and salary jobs in Pennsylvania expanded by 15,700 in November to a new all-time high of 5,129,000. This represents a gain of 110,300 over one year ago.

Meanwhile, data made available today through the Current Population Survey (CPS) of households and released by the Bureau of Labor Statistics (BLS) show

UNITED STATES & PENNSYLVANIA UNEMPLOYMENT RATES (SEASONALLY ADJUSTED)

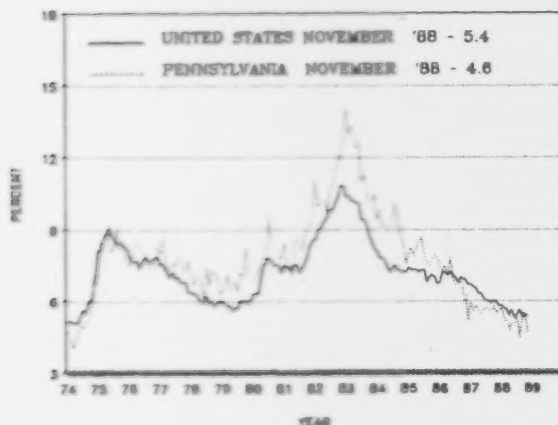


TABLE 1
TOTAL CIVILIAN LABOR FORCE
EMPLOYMENT AND UNEMPLOYMENT
IN PENNSYLVANIA
(All persons in thousands)

RESIDENT DATA	NOV. 1988	OCT. 1988	NOV. 1987	NET CHANGE FROM	
				OCT. 1988	NOV. 1987
SEASONALLY ADJUSTED DATA					
Civilian Labor Force	5,728	5,707	5,709	19	17
Employment	5,465	5,394	5,394	71	71
Unemployment	261	313	315	-52	-54
Rate of Unemployment (%)	4.6	5.5	5.5	-0.9	-0.9
UNADJUSTED DATA					
Civilian Labor Force	5,739	5,770	5,724	-31	15
Employment	5,491	5,478	5,425	13	66
Unemployment	248	292	300	-44	-52
Rate of Unemployment (%)	4.3	5.1	5.2	-0.8	-0.9

November seasonally adjusted employment in Pennsylvania at 5,465,000, up 71,000 from October. Although November's level was not close to the record highs of the year, it was not bloated by the unprecedented number of temporary jobs that pushed employment to surprising heights during the summer. In that respect, the November employment gains are probably more permanent and beneficial to the state's economy.

The strong employment gain lowered unemployment, seasonally adjusted, to 261,000 in November, down 52,000 from October. The seasonally adjusted rate of unemployment fell 0.9 percentage point to 4.6 percent, surpassed during the current economic recovery only by August's rate of 4.5 percent. Lower rates have not been seen in Pennsylvania since April 1974 when a rate of 4.3 percent was achieved. November's rate was well below the year-earlier rate of 5.5 percent.

PENNSYLVANIA'S JOBS

TABLE 2

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT

(Not seasonally adjusted, number in thousands)

ESTABLISHMENT DATA	NOV. 1988 AP/ P/	OCT. 1988 P/	SEPT. 1988	OCT. 1987	NET CHANGE TO	
					OCT. 1988 FROM: SEPT. 1988	OCT. 1987
NONAG. WAGE AND SALARY	5129.0	5113.3	5083.0	5008.1	30.3	105.2
—MANUFACTURING INDUSTRIES	1057.3	1056.0	1056.6	1052.4	-0.6	3.6
DURABLE GOODS INDUSTRIES	605.4	604.8	604.0	598.4	0.8	6.4
LUMBER AND WOOD PRODUCTS		31.3	31.7	30.5	-0.4	0.8
FURNITURE AND FIXTURES		21.7	21.6	22.1	0.1	-0.4
STONE, CLAY, AND GLASS PRODUCTS		48.5	48.6	47.9	-0.1	0.6
PRIMARY METAL INDUSTRIES		93.3	93.0	89.5	0.3	3.8
FABRICATED METAL PRODUCTS		93.9	93.5	93.1	0.4	0.8
MACHINERY, EXCEPT ELECTRICAL		109.7	109.1	105.1	0.6	4.6
ELECTRIC & ELECTRONIC EQUIPMENT		92.6	92.5	92.3	0.1	0.3
TRANSPORTATION EQUIPMENT		59.5	59.8	62.7	-0.3	-3.2
INSTRUMENTS AND RELATED PRODUCTS		33.9	34.0	34.4	-0.1	-0.5
MISCELLANEOUS MANUFACTURES		20.4	20.2	20.8	0.2	-0.4
NONDURABLE GOODS INDUSTRIES	451.9	451.2	452.6	454.0	-1.4	-2.8
FOOD AND KINDRED PRODUCTS		92.7	92.7	93.2	0.0	-0.5
TOBACCO MANUFACTURES		1.2	1.3	1.3	-0.1	-0.1
TEXTILE MILL PRODUCTS		30.4	30.8	31.4	-0.4	-1.0
APPAREL AND OTHER TEXTILE PRODS.		81.8	82.2	85.0	-0.4	-3.2
PAPER AND ALLIED PRODUCTS		40.7	41.0	40.9	-0.3	-0.2
PRINTING AND PUBLISHING		81.6	81.3	81.3	0.3	0.3
CHEMICALS AND ALLIED PRODUCTS		60.6	60.7	59.2	-0.1	1.4
PETROLEUM AND COAL PRODUCTS		10.3	10.5	10.7	-0.2	-0.4
RUBBER AND PLASTICS PRODUCTS		42.2	42.1	40.6	0.1	1.6
LEATHER AND LEATHER PRODUCTS		9.7	10.0	10.4	-0.3	-0.7
—NONMANUFACTURING INDUSTRIES	4068.4	4055.9	4023.6	3953.8	32.3	102.1
MINING	29.4	30.1	30.1	31.1	0.0	-1.0
CONTRACT CONSTRUCTION	251.0	256.2	256.6	241.5	-0.4	14.7
TRANSPORTATION	143.9	144.7	142.4	145.0	2.3	-0.3
PUBLIC UTILITIES	104.8	104.6	104.9	104.7	-0.3	-0.1
COMMUNICATIONS		49.7	49.7	49.9	0.0	-0.2
ELECTRIC, GAS AND SANITARY		54.9	55.2	54.8	-0.3	0.1
WHOLESALE TRADE	270.3	270.1	269.7	264.6	0.4	5.5
RETAIL TRADE	900.6	885.6	879.8	876.3	5.8	9.3
GENERAL MERCHANDISE STORES		127.8	121.7	129.2	6.1	-1.4
FINANCE, INSURANCE AND REAL ESTATE	298.5	298.4	298.8	293.0	-0.4	5.4
BANKING		87.5	87.9	88.0	-0.4	-0.5
INSURANCE CARRIERS		90.1	89.4	85.9	0.7	4.2
SERVICES	1364.0	1366.2	1359.0	1300.9	7.2	65.3
BUSINESS SERVICES		242.5	241.7	223.5	0.8	19.0
HEALTH SERVICES		438.6	436.8	421.6	1.8	17.0
—HOSPITALS		240.1	238.9	232.8	1.2	7.3
LEGAL SERVICES		37.8	37.7	37.0	0.1	0.8
EDUCATIONAL SERVICES		160.8	146.2	155.0	14.6	5.8
SOCIAL SERVICES		87.9	87.7	81.9	0.2	6.0
MISCELLANEOUS SERVICES		66.5	66.2	61.7	0.3	4.8
OTHER SERVICES		332.1	342.7	320.2	-10.6	11.9
GOVERNMENT	705.9	700.0	682.3	696.7	17.7	3.3
FEDERAL		142.6	143.1	142.0	-0.5	0.6
STATE		154.9	151.0	153.1	3.9	1.8
LOCAL		402.5	388.2	401.6	14.3	0.9
—PERSONS IN LABOR-MGMT. DISPUTES	3.3	1.4	2.8	1.9	-1.4	-0.5

AP/ = Advanced preliminary, based on early survey returns.
P/ = Preliminary data.

NEW EMPLOYMENT RECORD SET IN NOVEMBER

According to advanced preliminary figures, Pennsylvania's total nonagricultural establishment employment far exceeded seasonal expectations by setting a new record in November. At 5,129,000, employment was up by 15,700 over the month, and by 110,300 over a year ago.

Manufacturing employment expanded to 1,057,300 with a higher-than-expected increase of 1,300 jobs over the month. Job growth was fairly well balanced between the durable goods (+600) and nondurable goods (+700) industries. Manufacturing employment has grown by 3,800 since November a year ago.

Approximately 80 percent of the job growth in November came from the nonmanufacturing industries. With an over-the-month increase of 12,500, the November total of 4,068,400 jobs, represented another record. Over-the-year, nonmanufacturing added 105,600 new jobs.

Leading the expansion in nonmanufacturing was retail trade. With the addition of 15,000 new jobs over the month, employment reached 900,600, the highest November total on record, surpassed only by December of 1987. Also gaining in November were wholesale trade, which at 270,300 equaled the second highest employment ever; finance, insurance and real estate, which normally declines at this time of year; and government, which increased by the ex-

pected amount in November.

NONMANUFACTURING SURPASSES EXPECTATIONS IN OCTOBER

Nonmanufacturing gained 32,300 jobs during October, exceeding seasonal expectations, and reaching a new all-time high of 4,055,900 jobs.

Services, with a record level 1,366,200 jobs, posted an over-the-month gain of 7,200 jobs. This greater-than-expected increase, along with a 17,700 increase in Government employment, and increases in the trade industry were the primary contributors to the expansion in nonmanufacturing.

Declines in construction; public utilities; and finance, insurance and real estate were minimal and less than expected.

LESS THAN EXPECTED DECLINE IN MANUFACTURING

An over-the-month decline of 600 in manufacturing was significantly less than expected. The 1,400 loss in nondurable goods was partially offset by an increase of 800 jobs in the durable goods sector. Manufacturing added 3,600 new jobs since last October with a gain of 6,400 new jobs in durable goods over the year and a loss of 2,800 in nondurables. Most of the growth in manufacturing during October occurred in the machinery, except electrical and primary metal industries.

HOURS AND EARNINGS

TABLE 3
PENNSYLVANIA HOURS AND EARNINGS
OF MANUFACTURING AND SELECTED NONMANUFACTURING PRODUCTION WORKERS
(Not seasonally adjusted, number in thousands)

INDUSTRY TITLE	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	OCT	SEPT	OCT	OCT	SEPT	OCT	OCT	SEPT	OCT
	1988	1988	1987	1988	1988	1987	1988	1988	1987
	P/			P/			P/		
MANUFACTURING INDUSTRIES	\$428.89	\$429.73	\$412.48	41.3	41.4	41.0	\$10.38	\$10.38	\$10.08
DURABLE GOODS	488.84	472.18	454.98	42.2	42.5	42.1	11.11	11.11	10.80
LUMBER AND WOOD PRODUCTS	344.20	353.88	358.88	38.7	40.7	41.9	8.87	8.86	8.58
FURNITURE AND FIXTURES	387.94	371.96	367.33	40.3	41.1	41.8	9.13	9.05	8.83
STONE, CLAY, AND GLASS PROD.	488.38	487.42	444.02	43.1	43.2	42.9	10.88	10.82	10.36
PRIMARY METALS	582.02	588.28	543.58	43.5	44.0	42.8	12.92	12.87	12.70
FABRICATED METAL PRODUCTS	457.30	459.87	443.94	42.5	42.8	42.0	10.78	10.74	10.57
NONELECTRICAL MACHINERY	483.21	488.80	469.27	42.8	43.1	42.7	11.28	11.29	10.98
ELECTRIC AND ELECTRONIC MACH.	418.34	417.79	419.57	41.1	40.8	41.5	10.13	10.24	10.11
TRANSPORTATION EQUIPMENT	548.97	559.01	498.52	42.8	43.1	41.2	12.91	12.97	12.10
INSTRUMENTS AND RELATED PROD.	433.54	434.08	423.07	40.8	41.3	41.8	10.60	10.51	10.17
MISCELLANEOUS MANUFACTURES	401.17	407.43	418.42	40.4	40.5	41.8	9.93	10.06	10.01
NONDURABLE GOODS	378.54	378.14	380.48	40.1	40.1	38.7	9.38	9.38	9.08
FOOD AND KINDRED PRODUCTS	419.42	424.13	393.38	41.2	41.5	40.1	10.18	10.22	9.81
TOBACCO PRODUCTS	247.02	255.02	269.98	40.1	41.0	43.9	8.18	8.22	6.15
TEXTILE PRODUCTS	284.36	284.58	282.89	38.9	38.2	38.9	7.31	7.28	7.00
APPAREL AND RELATED PRODUCTS	231.47	228.88	217.41	38.8	38.5	35.7	6.28	6.27	6.08
PAPER PRODUCTS	483.11	483.98	485.02	43.8	43.8	43.5	11.03	11.05	10.88
PRINTING AND PUBLISHING	437.80	441.40	429.55	38.8	40.2	38.7	11.00	10.98	10.82
CHEMICALS AND ALLIED PRODUCTS	528.61	514.98	513.54	43.4	41.8	43.3	12.42	12.37	11.88
PETROLEUM AND COAL PRODUCTS	810.10	803.94	584.58	43.3	43.2	42.1	14.08	13.98	13.41
RUBBER AND PLASTICS PRODUCTS	380.45	382.05	375.84	41.8	41.8	41.9	9.08	9.14	8.97
LEATHER PRODUCTS	231.88	232.31	228.84	38.3	38.7	37.9	6.38	6.33	5.98
NONMANUFACTURING INDUSTRIES									
ANTHRACITE COAL MINING	431.34	440.22	444.83	38.4	38.9	37.1	11.85	11.93	11.98
BIT. COAL & LIGNITE MINING	847.40	848.43	845.54	41.5	41.2	42.0	15.80	15.88	15.37
COMMUNICATIONS	532.12	544.40	535.31	38.3	40.0	38.8	13.54	13.81	13.45
ELECTRIC, GAS, & SANITARY	873.38	880.57	871.88	43.0	42.7	43.8	15.88	15.47	15.41
GENERAL MERCHANDISE STORES	182.92	188.30	188.91	27.8	28.4	28.8	6.58	6.58	6.40

P/ Preliminary data.

HOURLY EARNINGS REMAIN AT SEPTEMBER LEVEL

October's average hourly earnings of production workers in Pennsylvania's manufacturing industries remained at the September level of \$10.38. However, the average weekly earnings declined \$1.04 due to a slightly shorter workweek (-0.1 hour). Average Weekly paychecks increased \$16.23 from a year ago. Within the manufacturing industries all workers had hourly raises from a year ago, except those in miscellaneous manufactures who lost \$0.08 an hour. These same workers had a drop of \$0.13 in their average hourly earnings from a month ago.

The highest average hourly wage was earned by workers in electric, gas and sanitary services (\$15.66) followed closely by bituminous coal and lignite miners (\$15.60) - both in nonmanufacturing.

The largest average workweek of 43.8 hours was recorded by workers in the paper products industry followed by those in primary metals (43.5); petroleum and coal products (43.3); and stone, clay and glass products (43.1) - all in manufacturing.

The shortest workweek was recorded in nonmanufacturing by workers in general merchandise stores. This was due to the large number of part-time workers employed in this industry.

UNEMPLOYMENT COMPENSATION

TABLE 4
UNEMPLOYMENT COMPENSATION REGULAR PROGRAM
(Not seasonally adjusted)

	OCTOBER 1988	SEPTEMBER 1988	OCTOBER 1987	NET CHANGE FROM SEPT. 88 OCT. 87	
CLAIMS ACTIVITY					
Initial Claims	63,887	55,407	69,330	8,480	-5,443
Weeks Claimed	364,007	380,936	378,942	-16,929	-14,935
—Average Weekly Volume	86,668	86,576	86,123	92	545
Insured Unemployed Rate	1.9%	1.9%	1.9%	0.0	0.0
PAYMENT ACTIVITY					
First Payments	20,548	18,688	22,188	1,860	-1,640
Final Payments	6,276	6,439	7,263	-163	-987
Weeks Paid	312,551	374,937	363,208	-62,386	-50,657
Net Benefit Amount	\$47,652,161	\$56,123,895	\$52,090,302	-\$8,471,734	-\$4,438,141
Avg. Check Amount	\$152.46	\$149.69	\$143.42	\$2.77	\$9.04

UNEMPLOYMENT COMPENSATION DEBT REPAID

As of October 31, 1988, the state's outstanding federal loan totaled \$197 million. This debt was fully repaid on November 9, 1988. Net reserves in the Unemployment Compensation Trust Fund remained above \$1 billion in October for the third successive month. At \$1.1 billion the net reserve balance at the end of October was virtually unchanged from a month ago, although disbursements from the Trust Fund did edge income by \$900,000 during the month.

Total weeks claimed fell by 4 percent between September and October to 364,007. This monthly total is the lowest on record since November 1969. The insured unemployment rate for October remained at 1.9 percent, which is the year's trough. Seasonal slowdowns were largely responsible for a 15 percent rise in initial claims from September to October. However, the initial claims total of 63,887 for October was the lowest for the month in 19 years.

UNEMPLOYMENT COMPENSATION TRUST FUND - OCTOBER 1988

Income - \$46,764,973

Disbursements - \$47,652,858

Cash Reserves \$1,284,237,827

Federal Loans \$ 197,294,185

Net Reserves \$1,086,943,642

UNEMPLOYMENT A GEOGRAPHIC VIEW

TWENTY-NINE COUNTIES ARE BELOW FIVE PERCENT

The October unadjusted unemployment rates for Pennsylvania's Counties were dispersed around the State's rate of 5.1 percent. Thirty-six counties had rates higher than the state and thirty-one had lower rates. Chester County had the lowest unemployment rate (2.9) and Greene County the highest (10.6)--the same rankings as in September. Greene County again recorded the only double digit rate.

Only six counties displayed changes greater than 1.0 percentage point: Fulton (+1.3), Elk (+1.3), Snyder (+3.3), Tioga (-1.1), Montour (-1.3), and Susquehanna (-1.5).

Nearly half of the counties had unemployment rates of 5.0 percent or less; the rate considered to represent full employment by many economists. Many areas with rates below five percent have experienced labor shortages and have had difficulty in filling positions with qualified personnel.



OCTOBER RATE
OF UNEMPLOYMENT

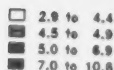


TABLE 5
PENNSYLVANIA COUNTIES RANKED BY
RATE OF UNEMPLOYMENT
(Not seasonally adjusted, preliminary)
OCTOBER - 1988

COUNTY	RANK	RATE (%)	VOLUME
Chester	1	2.9	5400
Montgomery	2	3.0	11800
Adams	3	3.5	1300
Bucks	3	3.5	10100
Delaware	3	3.5	10300
Lebanon	6	3.6	2200
Berks	7	3.7	6800
Cumberland	7	3.7	4000
Union	7	3.7	800
Pike	10	3.9	400
Monroe	11	4.0	1700
Lancaster	12	4.1	8600
Northampton	12	4.1	4600
Franklin	14	4.2	2300
Lehigh	14	4.2	6200
Sullivan	16	4.3	100
Susquehanna	17	4.6	800
York	17	4.6	8300
Allegheny	19	4.7	29800
Dauphin	19	4.7	6200
Tioga	19	4.7	900
Bradford	22	4.8	1500
Montour	22	4.8	400
Wayne	22	4.8	1000
Wyoming	22	4.8	800
Columbia	26	4.9	1500
Lycoming	26	4.9	3000
Mercer	26	4.9	2500
Perry	26	4.9	1000
Lackawanna	30	5.0	5500
Warren	30	5.0	1100
Centre	32	5.3	3400
Potter	33	5.4	400
Butler	34	5.5	3800
Carbon	34	5.5	1400
Washington	36	5.6	5100
Schuylkill	37	5.8	4200
Erie	38	6.0	7800
Philadelphia	38	6.0	44700
Lawrence	40	6.2	2700
Cameron	41	6.3	200
Clinton	41	6.3	900
Venango	43	6.6	1700
Crawford	44	6.7	2600
Jefferson	44	6.7	1300
Blair	46	6.8	4100
Elk	46	6.8	1200
Fulton	46	6.8	400
McKean	46	6.8	1400
Somerset	46	6.8	2100
Cambria	51	7.0	4400
Luzerne	52	7.1	11500
Armstrong	53	7.4	2000
Snyder	54	7.5	1400
Westmoreland	55	7.6	12900
Bedford	56	7.7	1700
Clarion	56	7.7	1400
Mifflin	56	7.8	1700
Juniata	56	7.9	800
Northumberland	56	7.9	3600
Forest	61	8.2	200
Beaver	62	8.5	5400
Huntingdon	63	8.8	1500
Fayette	64	9.1	5300
Indiana	65	9.5	3300
Clearfield	66	9.6	3300
Greene	67	10.6	1400

PENNSYLVANIA'S LABOR MARKET AREAS

TABLE 6
TOTAL UNEMPLOYMENT VOLUME AND RATE
BY MAJOR LABOR MARKET AREA IN PENNSYLVANIA
 (Seasonally adjusted, number in thousands)

AREA	OCTOBER 1988 * UNEMPLOYMENT NUMBER AND RATE%		SEPTEMBER 1988 UNEMPLOYMENT NUMBER AND RATE%		OCTOBER 1987 UNEMPLOYMENT NUMBER AND RATE%	
UNITED STATES	6491	5.3	6596	5.4	7177	6.0
PENNSYLVANIA	313	5.5	315	5.4	331	5.8
LABOR MARKET AREA						
ALLENTOWN-BETHLEHEM MSA	14.8	4.6	14.8	4.6	16.5	5.1
ALTOONA	4.4	7.3	4.3	7.2	4.5	7.6
BEAVER COUNTY PMSA	5.2	8.4	5.5	8.6	6.3	10.0
ERIE MSA	8.5	6.6	8.1	6.2	9.3	7.2
HARRISBURG-LEB-CARLISLE MSA	14.5	4.6	14.4	4.5	13.2	4.2
JOHNSTOWN MSA	7.7	8.2	7.6	8.0	8.6	9.0
LANCASTER MSA	8.7	4.0	8.0	3.6	9.3	4.3
PHILADELPHIA PMSA	102.7	4.3	104.0	4.3	107.8	4.4
PITTSBURGH PMSA	56.9	6.0	56.6	5.9	63.3	6.6
READING MSA	7.8	4.4	7.8	4.4	8.4	4.8
SCRANTON--WILKES-BARRE MSA	22.3	6.3	21.7	6.1	25.0	7.1
SHARON MSA	2.7	5.3	2.7	5.3	3.2	6.4
STATE COLLEGE MSA	3.3	5.3	3.4	5.4	3.4	5.6
WILLIAMSPORT MSA	3.4	5.6	3.5	5.6	3.6	6.0
YORK MSA	10.2	4.7	9.5	4.3	10.4	4.9

* Preliminary data

UNEMPLOYMENT RATES REMAIN STABLE

Seasonally adjusted unemployment rates changed very little over the month in the labor market areas. Both increases and decreases were less than 1.0 percentage point. The largest increase, 0.3 percentage point occurred in the Lancaster, York and Scranton/Wilkes-Barre MSAs. The largest decline of 0.4 percentage point was reported in the Beaver County PMSA which also had the highest unemployment rate in October. The seasonally adjusted unemployment rates in eight

major labor market areas were lower than Pennsylvania's rate of 5.5, while the other seven were higher.

SERVICE DELIVERY AREAS

Unemployment rates (unadjusted) for Service Delivery Areas (SDAs) also showed little change from a month ago. October rates ranged from 2.9 in SDA 21 (Chester County) to 8.5 in SDA 05 (Beaver County) with no change greater than 0.7 percentage point from a month ago.

SERVICE DELIVERY AREAS

TABLE 7
MONTHLY EMPLOYMENT SITUATION
OCTOBER 1988 — PRELIMINARY
(DATA NOT SEASONALLY ADJUSTED, VOLUME IN THOUSANDS)

SDA NO.	COUNTIES	LABOR FORCE	EMP.	UNEMP.	RATE(%)
01	Erie	129.5	121.7	7.8	6.0
02	Clarion, Crawford, Forest, Venango, Warren	104.7	97.8	6.8	6.5
03	City of Pittsburgh	170.0	161.4	8.6	5.1
04	Allegheny County minus City of Pittsburgh	464.7	443.6	21.2	4.6
05	Beaver	63.3	57.9	5.4	8.5
06	Armstrong, Butler, Indiana	133.2	124.0	9.2	6.9
07	Fayette, Westmoreland	228.5	210.3	18.2	8.0
08	Greene, Washington	103.2	96.7	6.5	6.3
09	Cameron, Clearfield, Elk, Jefferson, McKean, Potter	101.8	94.0	7.8	7.7
10	Bedford, Blair, Cambria, Fulton, Huntingdon, Somerset	200.2	185.9	14.3	7.1
11	Centre, Clinton, Lycoming, Mifflin	162.2	153.1	9.0	5.6
12	Columbia, Juniata, Montour, Northumberland, Snyder, Union	131.8	123.3	8.5	6.4
13	Bradford, Sullivan, Susquehanna, Tioga, Wyoming	83.3	79.4	3.9	4.7
14	Lackawanna	106.9	103.4	5.5	5.0
15	Carbon, Monroe, Pike, Wayne	98.6	94.1	4.5	4.5
16	Luzerne, Schuylkill	232.7	217.0	15.7	6.7
17	Philadelphia	744.8	700.1	44.7	6.0
18	Bucks	291.1	281.0	10.1	3.5
19	Montgomery	385.0	373.4	11.6	3.0
20	Delaware	297.6	287.3	10.3	3.5
21	Chester	188.3	182.8	5.4	2.9
22	Lehigh, Northampton	258.7	247.9	10.8	4.2
23	Berks	179.0	172.5	6.5	3.7
24	Cumberland, Dauphin, Lebanon, Perry	319.6	306.2	13.4	4.2
25	Lancaster	220.2	211.3	8.9	4.1
26	York	180.5	172.2	8.3	4.6
27	Adams, Franklin	93.2	89.5	3.6	3.9
28	Lawrence, Mercer	95.6	90.3	5.2	5.5
PENNSYLVANIA - TOTAL		5770.0	5478.0	292.0	5.1

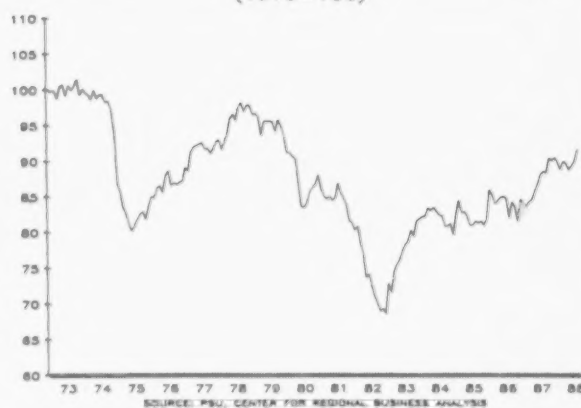
A Service Delivery Area is a geographical planning region defined by the Jobs Training Partnership Act (JTPA).

A good deal of attention has been given to the so-called "decline" of the manufacturing sector in the Commonwealth, not only in the *Pennsylvania Business Survey*, but elsewhere as well. For the most part, these discussions have focused on trends in job levels and, to a somewhat lesser extent, income. At the same time, we have often footnoted these analyses with a caution. Specifically, we pointed out that, although no hard data existed, it was quite likely that job and income information perhaps did not provide a true reflection of production activity in Pennsylvania's factories. Indeed, it is for this reason that information pertaining to industrial power sales and total hours worked has historically been a part of the *Survey's* focus, since these indicators may shed additional light on production trends. Still, these series only provided circumstantial evidence with respect to industrial output, which, in the absence of reliable data on the physical output of goods, was about the best that could be done.

However, a good deal of recent research, a fair portion of which has been initiated by regional Federal Reserve Banks, has focused on the development of methodologies pertaining to the construction of regional and state-level industrial production indexes. As a result, Penn State's Center for Regional Business Analysis has, over the course of the past several months, applied these various methodologies to Pennsylvania and developed a Pennsylvania Manufacturing Activity Index (PMAI), which is illustrated in the accompanying chart. In a nutshell, the PMAI suggests that the long-term trend in manufacturing output, stretching back over 15 years, has been slightly downward. In that activity tends to move with the business cycle, the index has increased since 1983, although factories do appear to be struggling to regain all of the ground lost in the most recent recession. Because of the difficulties experienced in the late 1970s and early 1980s, production in Pennsylvania manufacturing establishments remains about 10 percent below 1973 levels, the base year of the index.

The index is based on historical trends in the annual behavior of the share of output (real value added by manufacturing) accounted for by labor (represented by hours worked) and capital (represented by industrial power sales) and the productivities of these two factors. Value added represents the value of shipments less the cost of purchased intermediate materials, summed over each stage of the production process which, when adjusted for inflation, is a good proxy for physical production. Included in value added are primarily returns to labor and capital and, to a lesser extent, capital recovery, profits, interest on debt, taxes, and the purchase of business services. Much of this information is obtained from annual reports provided by the U.S. Bureau of the Census. These annual trends are applied to intervening months (the interpolation process) and, since the historical data is released with a considerable lag, extrapolated out to the present. These trends and patterns, in conjunction with information on total hours worked and industrial power sales, which we have access to on a monthly basis after only a brief lag, allow us to estimate real value added on a monthly basis for Pennsylvania's manufacturers.

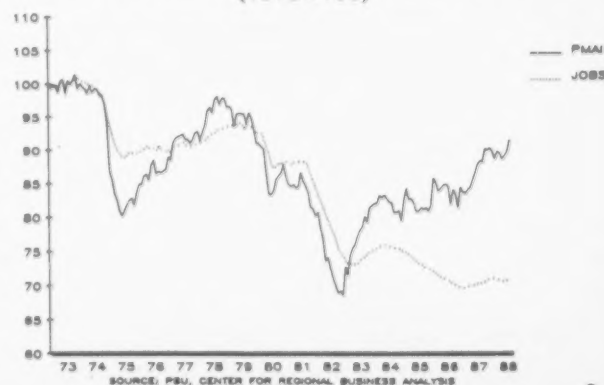
PENNSYLVANIA MANUFACTURING ACTIVITY INDEX
(1973=100)



Two points merit further attention. First, it does appear that recent job trends, say, stretching back to 1983, have failed to provide an adequate reflection of overall production trends. Specifically, it appears that production has been able to move forward while job levels have been on a downward trajectory (see chart). This is due to the fact that the average worker in Pennsylvania's manufacturing sector has become more productive per hour worked. Indeed, through the first eight months of this year, manufacturing jobs in the Commonwealth have declined by 7 percent since the trough in the business cycle around 1982/1983. At the same time, production has grown by approximately one-fifth.

Second, and on a more negative note, it does appear that, as with nearly all long-term indicators of economic activity, industrial production trends in Pennsylvania are worrisome when compared to those for the U.S., as shown in the accompanying chart. Other researchers have often made comparisons of regional industrial production indexes to the U.S. index as tabulated by the Federal Reserve. Such a comparison suggests that Pennsylvania has trailed the U.S. by a considerable margin. While production in the Commonwealth currently remains below levels from 1973, the base year of the index, U.S. manufacturing output has advanced by approximately 50 percent. However, because of differences in

PENNSYLVANIA MANUFACTURING ACTIVITY INDEX AND
PENNSYLVANIA MANUFACTURING JOBS
(1973=100)

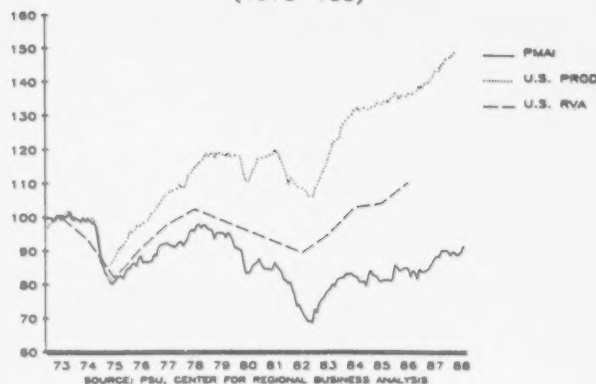


methodologies, such a comparison may not be appropriate. Ideally, comparisons should be made between the PMAI and a similar index using identical methodologies for the U.S. In the absence of such an index, a comparison is made through 1986 with the annual totals for real value added for U.S. manufacturers. Although this also shows the Commonwealth lagging the U.S., the shortfall is not nearly as large as when comparisons are made using the U.S. industrial production index.

The development of such an index provides us with yet another tool to analyze the Pennsylvania economy and, as a result, the PMAI will become an important component of the monthly analyses contained in the *PBS*. Some caution, however, is warranted in interpreting the index. Its fit with historical "actual" data is nearly perfect. However, over the extrapolated portion of the index (currently stretching back to 1987 since real value added data is available only through 1986) it is perhaps best to treat the index as a qualitative as opposed to a quantitative measure of manufacturing production trends since this portion of the index is subject to revision. Nonetheless, statistical tests have shown that earlier extrapolation periods did pick up turning points and provided a reliable indicator of output trends. In a nutshell, it is best to focus on long-term trends in the Pennsylvania Manufacturing Activity Index rather than on month-to-month movements in the index.

— William D. Anderson

PMAI, U.S. INDUSTRIAL PRODUCTION, AND
U.S. REAL VALUE ADDED
(1973=100)



SOURCE: The above article is reprinted from the October, 1988 issue of the "Pennsylvania Business Survey," published by the Division of Research of the College of Business Administration, The Penn State University, University Park. Mr. Anderson is the Assistant Director of the Center for Regional Business Analysis.

TECHNICAL NOTES

Civilian Labor Force Estimates

Civilian Labor Force - Estimated number of persons 16 years of age and over, employed or unemployed during week including 12th of month, distributed by place of residence.

Total Employed - Includes nonagricultural wage and salary workers, the self-employed, unpaid family workers, domestics, agricultural workers, and persons involved in labor disputes. Employment distributed by place of residence.

Total Unemployed - Estimated number of persons, by place of residence, who did not work during reference week and were looking for work, whether or not eligible for unemployment compensation. Includes those who did not work and were waiting to be called back to an old job or to report to a new job.

Nonagricultural Wage and Salary Employment

Collection - Nonagricultural wage and salary employment as well as hours and earnings estimates based on monthly reports from sample of employers. Under cooperative arrangement with U.S. Bureau of Labor Statistics, the Bureau of Research & Statistics of the Pennsylvania Department of Labor & Industry, mails, edits, and processes reports, which are subsequently incorporated in national data.

Industrial Classification - Employer establishments classified by industry on basis of their principal product or service. The Standard Industrial Classification Manual (U.S. Office of Management and Budget, Washington, D.C., 1972, amended 1977) used for classification.

Nonagricultural Employment - A count of jobs by place of work. Includes persons on paid sick leave, paid holiday, or paid vacation. Excluded are persons laid off, on strike, or on unpaid vacation during entire reporting period. Proprietors, the self-employed, unpaid family workers, farm workers, and domestic workers also excluded. Government employment covers only civilian employees. Full-time teachers considered employed during the summer vacation period, whether or not paid in those months.

Benchmark Data - Employment estimates compared annually with complete count of employment, by industry. Where revisions necessary, monthly estimates adjusted to new benchmark. Following revisions to new benchmark, industry data projected forward to current month by use of sample trends. Basic source of benchmark information is tabulations of employment data, by industry and area, compiled from contribution reports of employers covered under Pennsylvania Unemployment Compensation Law.

Hours and Earnings

Method of Computing Averages - Average hours computed by dividing total production worker hours worked during one week (the seven-day period which includes 12th of month) by number of production workers for week. Average hourly earnings computed by dividing total production worker payroll for one week by total production worker hours for week. Average weekly earnings derived by multiplying average hourly earnings by average weekly hours.

Definitions - Definitions of production or similar workers, payroll, and hours - from which average hours and earnings data are derived - follow:

Production Workers - Includes working supervisors and all non-supervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (such as power plant), and record keeping and other services closely associated with production operations.

Payroll - Represents payroll for full- and part-time production, construction, or nonsupervisory workers who received pay for any part of pay periods which include 12th of month. Payroll is reported before deductions for Social Security, group insurance, withholding tax, bonds, and union dues; also includes pay for overtime, holidays, vacations, and sick leave paid directly by the firm.

Hours - Represents hours worked or paid, during pay periods which include 12th of month, for production, construction, or non-supervisory workers. Hours include time paid for holidays and vacations, and for sick leave when pay received directly from firm.

Unemployment Compensation

Initial Claims - Notices of unemployment filed to request a determination of entitlement to compensation in a new benefit year (period of eligibility) following a period of employment or to begin a second or subsequent period of eligibility within the benefit year following interim employment within the benefit year.

Weeks Claimed - Requests for benefits filed by claimants which certify to the fact the claimants experienced total, partial, or part-total unemployment for given weeks.

Average Weekly Claims - Total number of weeks claimed in a month divided by the number of weeks in the month.

Insured Unemployment Rate (IUR) - Ratio of the average weekly number of persons claiming unemployment compensation benefits within the given month to average annual covered employment. Calculated by dividing the month's average weekly continued weeks claimed by the latest 12 month average covered employment for which data is available.

First Payment - First benefit check a claimant receives for a week of unemployment in a benefit year.

Weeks Paid - Weeks claimed which were paid to eligible claimants upon certification that unemployment compensation qualifying unemployment was experienced during given weeks.

Net Benefit Amount - Amount of regular unemployment compensation benefits paid to claimants, after adjusting for returned and redeposited benefit checks.

Income - Amount of funds deposited into the Unemployment Compensation Trust Fund for the current month including employer and employee contributions, transfers from other sources such as the Special Administration Fund, redeposited unemployment compensation checks, federal benefit program reimbursements, loans, and interest earnings.

Disbursements - Amount of funds disbursed from the Unemployment Compensation Trust Fund for the current month including the payment of state unemployment compensation benefits, federal program benefits, refunds, and voluntary federal loan repayments.

Balance - Amount of funds available in the State's Unemployment Compensation Trust Fund to pay unemployment compensation benefits.

Federal Loans - Balance of unemployment compensation loans owed by Pennsylvania to the federal government.